ABSTRACT

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IN-PIXEL MEMORY FOR DISPLAY DEVICES

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Magnetoresistive random access memory (MRAM) is used to provide in-pixel memory circuits for display devices. A memory circuit (25) comprises memory elements, for storing a drive setting, and a read-out circuit, for example a flip-flop circuit (64), for reading-out the stored drive setting. The memory elements comprise two MRAMs (60, 62), each coupled to a respective input of the flip-flop circuit (64). A drive circuit (26) is coupled to the read-out circuit and a pixel display electrode (27) for driving the pixel display electrode (27) dependent upon the read-out drive setting with drive current that does not pass through the MRAMs (60, 62). A display device (1) is provided comprising a plurality of pixels (20) each associated with one such memory circuit (25) and drive circuit (26).

(Figure 5)